

$^{12}\text{C}(^{11}\text{B},^{11}\text{B}),(^{11}\text{B},\alpha^{7}\text{Li}) \quad \textcolor{blue}{2003\text{Me36},1994\text{Wo02}}$

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu		NP A880, 88 (2012)	1-Jan-2011

- 1969Vo10:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B})$, E=28 MeV; measured $\sigma(\theta)$. Deduced optical model parameters.
- 1971Li11:** $^{11}\text{B}(^{12}\text{C},^{11}\text{B})$, E=87 MeV; measured $\sigma(\theta)$. Deduced optical model parameters.
- 1978Fr20:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B})$, E=18.8-34.1 MeV; measured $\sigma(E)$.
- 1979Fr05:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B})$, (^{11}B , $^{11}\text{B}'$), $E_{\text{C.M.}}=9.4\text{-}17.8$ MeV; measured $\sigma(E,\theta)$.
- 1982Ma20:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B})$, E=25, 40, 50 MeV; measured $\sigma(\text{fragment } \theta, E)$ for $\alpha=9\text{-}22$; deduced fusion σ vs E.
- 1985Ja01:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B})$, E=10.4, 12.4, 14.57 MeV; measured $\sigma(\theta)$. Exact finite-range DWBA.
- 1985Ma10:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B})$, E=4-9 MeV/nucleon; measured $\sigma(\theta)$, $\sigma(\text{fragment } E)$ for fragment mass=11, fusion σ vs E.
- 1986Ma13:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B})$, E=48 MeV; measured $\sigma(\theta)$.
- 1988Ma07:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B})$, E=18.8-34.1 MeV; measured $\sigma(\theta)$ vs E. Deduced model parameters.
- 1991Al12:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B})$, $E_{\text{C.M.}}=14.6\text{-}41.7$ MeV; measured $\sigma(E,\theta)$. Deduced model parameters.
- 1991Ja09:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B}')$, $E_{\text{C.M.}}=15\text{-}40$ MeV; measured $\sigma(\theta)$. ^{11}B levels deduced spectroscopic factors.
- 1992Ja12:** $^{11}\text{B}(^{12}\text{C},^{11}\text{B})$, E=344.5 MeV; measured $\sigma(\theta)$. DWBA analysis.
- 1994Wo02:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B})$, E=87 MeV; measured $\sigma(\theta)$ elastic, (fragment)(fragment)-relative energy spectra. Deduced sequential breakup σ , reaction mechanism. DWBA analysis.
- 2001Oz03:** $\text{C}(^{11}\text{B},X)$, $E\approx 950$ MeV/nucleon; measured interaction σ . ^{11}B deduced radii.
- 2001Ru14:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B})$, E=49 MeV; measured $\sigma(\theta)$; deduced optical model parameters, energy dependence. ^{11}B deduced deformation parameters.
- 2003Me36:** $^{12}\text{C}(^{11}\text{B},^{11}\text{B})$, (^{11}B , $^{11}\text{B}'$), E=49 MeV; analyzed $\sigma(\theta)$, deduced target excitation effect. ^{11}B deduced deformation length for ground and excited states.

 ^{11}B Levels

E(level)	T _{1/2}	Comments
0		$\delta_2=1.0$ (2003Me36). $R_{\text{rms}}=2.09$ fm $I2$ (2001Oz03 , 2001Oz04).
2.12×10^3		
4.44×10^3		
5.02×10^3		$\delta_2=0.8$ (2003Me36).
9191 10	30 keV 11	E(level): Γ : from $E_{\text{rel}}=527$ keV 10 (1994Wo02).
9268 10	37 keV 9	E(level): Γ : from $E_{\text{rel}}=604$ keV 10 (1994Wo02).
10274 14	337 keV 44	E(level): Γ : from $E_{\text{rel}}=1610$ keV 14 (1994Wo02).
10612 7	83 keV 22	E(level): Γ : from $E_{\text{rel}}=1948$ keV 7 (1994Wo02).